



PREDISPOSING FACTORS FOR THE DEVELOPMENT OF ACUTE LOCALIZED OTITIS EXTERNA and ITS MANAGEMENT

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Dr Nisha Sharma

Department of otorhinolaryngology & Head neck surgery Deendayal Upadhyay Zonal Hospital Shimla, Himachal Pradesh, India, 171001

Dr Shaweta

Department of otorhinolaryngology & Head neck surgery Civil Hospital Sarkaghat, Mandi HP, 175024

ABSTRACT

Acute localized otitis externa is one of the most common disease entity having patients usually encountered in the department of otorhinolaryngology as outdoor patient. Patients presented with severe pain in the ear. All patients can be treated with oral antibiotic in the early stages as the most common causative organism is staphylococcus aureus. Some streptococcal species can also cause this.

KEYWORDS

INTRODUCTION

Acute localized otitis externa is also known as furunculosis of external auditory canal. It is localized circumscribed infection of hair follicles of external auditory canal. It occurs in the cartilaginous portion of EAC as hair follicles lies in this part.¹

Staphylococcus aureus predominantly causes the Acute localized otitis externa.^{2,3} Streptococcus species have also been isolated in some cases.⁵

Staphylococci produce cytotoxins. These cytotoxins are leukocidal cytotoxins having two separate components. One component belongs to class F and other to class S. Some well known toxins are gamma hemolysin, HlgC, HlgB, HlgNHlgB, Leukocidin Pantone Valentine, LUKSPV/LUKF-PV. These toxins target the cell membrane and stimulate the lysis of phagocytic cells.⁴ Patients usually present with symptoms like pain in the affected ear, itching.⁵

There is tender, erythematous perifollicular swelling in the lateral wall of EAC on examination.²

It is treated by oral antibiotics, local heat, analgesic in the early stages. If there is pointed collection has been seen in the EAC, then incision and drainage should be done followed by oral/topical antibiotics and analgesics.⁵

AIM & OBJECTIVES

AIM

- To analyse the predisposing factors for the development of the Acute localized otitis externa
- To study the effectiveness of oral antibiotic (amoxicillin+ clavulanic acid)

OBJECTIVES

Primary Objective;

- To analyse the predisposing factors for the development of the Acute localized otitis externa
- To study the effectiveness of oral antibiotic (amoxicillin+ clavulanic acid)

Secondary Objective;

To study the use of levocetirizine in patients having intense itching followed by the use of cotton bud for scratching of ears in combination with proper counselling.

MATERIALS AND METHODS

A total of 50 patients was included in our study who were diagnosed with acute localized otitis externa in the ENT OPD of civil hospital barsar from October 2020 to April 2021. Last patient was recruited till May 2021 as follow up period was 2 weeks in our study. It was a prospective cohort study. All these patients underwent a detailed clinical history and examination, complete Ear, Nose, and Throat examinations.

Study Design

A total of 50 patients was included in our study who were diagnosed

with acute localized otitis externa. All these patients underwent a detailed clinical history and examination, complete Ear, Nose, and Throat examinations.

Inclusion Criteria

- All cases clinically diagnosed with acute localized otitis externa.
- Any age group and male and female patient.

Exclusion Criteria

- Otitis externa other than acute localized otitis externa.

Follow Up

The follow up period planned for the prospective study was 2 weeks following treatment.

Statistical Analysis

A comparative analysis was done using SPSS for Windows 22.0 statistical software.

RESULT

There were 25 patients diagnosed with acute localized otitis externa in OPD. All patients presented with symptoms of pain, itching in early cases while some with ear fullness. There were two study groups in our study. One group containing patients less than 40 years and other was with more than 40 years. 56% of patients were below 40 yr and 44% were above 40 yr. 76% patients were female patients and 24% were male patients. 96% of patients showed involvement of unilateral ear and 4% of patients involved both ears.

68% of patients presented with in 24-48 hr in OPD and showing only involvement of unilateral ear while 32% of patients reached in OPD after 72 hrs and involved both lateral wall and floor of external auditory canal.

76% of patients complained of pain and itching only while rest of the patients complained pain, itching and ear fullness. All patients had tragal tenderness on examination. Most of the cases attempt to see the tympanic membrane was deferred due to extreme pain however tympanic membrane was intact in the majority of patients.

All patients had history of frequent itching using finger, cotton bud, match stick. 4% of patients were with associated chronic otitis media in affected ear and 4% of patients had associated allergic condition in our study.

76% of patients responded to 3 days course antibiotics and anti-inflammatory while rest of the patients with 5 days course of the same. We used prolonged use of antiallergic (levocetirizine 5mg) for 21 days in this study with adequate counselling of the patients for not scratching ears with finger, cotton bud, match stick. Follow up was done at the completion of 21 days. All patients were symptomatically improved. Prolonged use of antiallergic significantly helped in breaking the scratching cycle in these patients.

DISCUSSION

Acute localized externa is the infection of hair follicle in external

auditory canal. we had examined total 50 patient in our study. We found all ages patients can be affected from child to old age. There is no specific gender predilection. Patient usually presented in the opd early because of severe pain in the peripheral setting. All patient presented with limited disease can be treated with oral antibiotics and oral analgesics. Hirsch BE et al¹ concluded that localized disease that have not progressed to form abscess are treated with oral antistaphylococcal antibiotics. Topical drops or ointment would not be of much use in case of localized disease. Only patients having disease progressed to abscess have been incised and drained followed by topical or oral antibiotics. We have taken detailed history of all patients. There was prior history of ear scratching using fingers, cotton bud, match stick followed by otitis externa in almost all patients. We found ear scratching is one of most profounding factor for the development of acute localized otitis externa. Incidence of this disease entity can be decrease by doing the proper education of the general public regarding by avoiding the use of cotton buds or any other means for ear scratching.

CONCLUSION

- We concluded that female patients outnumber men in our study.
- All patients had prior history of itching in ears and habits of scratching ear with ear bud, finger and match stick.
- Patients who presented with in 24-48 hours of onset of symptoms improved with 3 days therapy and patients reached after 72 hours in the opd treated with 5 days therapy.
- Prolonged use of antiallergic for 3 weeks along with adequate counselling not scratching ears helped in breaking the scratch cycle in these patients during follow up period.

Limitation

1. There was small sample size in our study.
2. There was no control group in our study.

Declaration of patient consent

We certify that we have obtained all appropriate patients consent form. In the form the patients has consent for clinical information to be reported in the journal. The patient understands that their name and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

Conflicts of interest

There are no conflicts of interest

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